

# Claims

- [c1] 1. A system (1) for monitoring the functioning of electric components on a vehicle or a vehicle combination comprising:
- a control system, an instrument (2), means (3) for activating at least one electric component (7, 9), means (4) for allowing an operator to give at least one message to the control system, means (10) for allowing the control system to give at least one message to the operator, and means (11) for measuring at least one characteristic value for said electric component (7, 9), said means (10) for allowing the control system to give at least one message to the operator is integrated into the instrument (2), the system (1) is integrated into the instrument (2), and the system (1) is integrated into an existing control system.
- [c2] 2. The system as recited in claim 1, wherein the system further comprises:
- means for saving at least one measured characteristic value.
- [c3] 3. The system as recited in claim 1, wherein the system further comprises:

means for comparing at least one measured characteristic value with at least one saved nominal value.

[c4] 4. The system as recited in claim 1, wherein the system further comprises:  
means for saving at least one characteristic value in one or more data set(s), where a data set contains at least one characteristic value and where the characteristic values in a data set correspond to the characteristic values for a vehicle.

[c5] 5. The system as recited in claim 1, wherein the system further comprises:  
means for saving at least one historical value for at least one component in at least one historical data set.

[c6] 6. The system as recited in claim 5, wherein the system further comprises:  
means for, with the aid of a historical data set, predicting the service life of a component.

[c7] 7. The system as recited in claim 5, wherein the system further comprises:  
means for transferring one or more historical data set(s) to a central unit.

[c8] 8. A method for monitoring the functioning of electrical components on a vehicle or a vehicle combination, the

method comprising:  
starting a monitoring procedure;  
activating at least one electric component;  
measuring at least one characteristic value for said component;  
allowing the control system to give at least one message to an operator via a means integrated in an instrument,  
and  
allowing an operator to give at least one message to a control system via a menu system.

[c9] 9. The method as recited in claim 8, further comprises:  
saving at least one measured characteristic value for said component.

[c10] 10. The method as recited in claim 8, further comprises:  
comparing at least one measured characteristic value with at least one saved nominal value for said component; and  
comparing at least one measured characteristic value with at least one saved maximum and/or minimum value for said component.

[c11] 11. The method as recited in claim 8, further comprises:  
giving one or more message(s) to an operator and/or  
saving one or more error message(s) when at least one measured characteristic value differs from at least one

saved nominal value by more than a predefined factor and/or is smaller than at least one saved minimum value and/or is greater than at least one saved maximum value,

12. The method as recited in claim 8, further comprises: monitoring a component every time the component is activated and/or, when the component is already activated, monitoring the component with a predefined time interval.

[c12] 13. The method as recited in claim 8, further comprises: activating a component or a number of components sequentially in a user state during the course of an adjustable time interval.

[c13] 14. The method as recited in claim 13, wherein the user state can be initiated and/or stepped through using an input unit and/or a remote control.

[c14] 15. The method as recited in claim 13, wherein the components which are to be activated in the user state can be selected by an operator.

[c15] 16. The method as recited in 15, further comprising: dividing the method into a number of part operations, where a part operation can monitor a part of the vehicle or the vehicle combination.

- [c16] 17. The method as recited in claim 16, wherein a part operation can be initiated automatically when a particular predefined event takes place.
- [c17] 18. The method as recited in claim 17, further comprising:  
saving characteristic values for a part operation in a data set.
- [c18] 19. The method as recited in claim 17, further comprising:  
selecting one of a number of data sets of saved nominal values for comparing the measured characteristic value.
- [c19] 20. method as recited in claim 19, further comprising:  
saving historical values for at least one component in at least one historical data set.
- [c20] 21. The method as recited in claim 20, further comprising:  
predicting the service life of a component with the aid of a historical data set.
- [c21] 22. The method as recited in claim 21, further comprising:  
transferring at least one data set of characteristic values for a part operation and/or at least one historical data

set to a central database.